

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Substance of the Interview

Applicant expresses appreciation to the Examiner (Mr. Minh Trinh) for the courtesy of the telephone interview held on November 19, 2008, with applicant's representative, Kumar Maheshwari (Reg. No. 60,443). In the interview, claim 6 was discussed. More specifically, applicant's representatives explained that k -th is an integer satisfying $n \geq k \geq 2$ and how k -th complies with 35 U.S.C. § 112.

Abstract

The abstract as amended, complies with the requirements of MPEP 608.01(b). No new matter is added. Applicants respectfully request that the objection is withdrawn.

Status of the Claims

Claim 1 is amended to recite features disclosed in the Original Specification, for example, at page 5, lines 19-22 and page 17, lines 3-7. Claim 12 is amended to conform to the requirement of 35 U.S.C. § 112. Thus no new matter is added. Claim 4 is cancelled, without disclaimer or prejudice.

Claim Rejections – 35 USC § 112

Claims 1-11 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regards as the invention.

Claim 1 is objected to with regard to “the step of holding” lacking antecedent basis. Claim 1 is amended to provide appropriate antecedent basis. Applicants respectfully request that the objection is withdrawn.

Claim 6 is objected to lacking antecedent basis and the objected to with regard to the use of step of k-th. Claim 6 as amended, provides appropriate antecedent basis, and further clarifies the meaning of k-th. N has been amended to be bound by being a finite integer greater or equal to 2. In particular, claim 6 recites that k is an integer satisfying $n \geq k \geq 2$. To further assist in understanding k-th it can be amended to recite k^{th} or kth. Moreover, claim 6 is amended to recite “the k-th rolling step, or the k-th sintering step.” For instance in common English and/or Mathematics, if k is 4, then k-th is the 4th (fourth) drawing, rolling, or sintering, or if k is 5, then k-th is the 5th (fifth) drawing, rolling or sintering and so on. Applicants respectfully request that the objections be withdrawn.

Claim Rejections – 35 USC § 102

Claims 1 and 4 are rejected under 35 U.S.C. §102(b) as being anticipated by Okayama et al. (U.S. Patent No. 6,103,669, hereinafter Okayama). This rejection is respectfully traversed.

Claim 1 as amended, recites among other features,

holding said wire under a reduced-pressure atmosphere during at least one of an interval between said step of drawing and said step of rolling and an interval between said step of rolling and said step of sintering, wherein during the at least one interval the wire is held at a temperature greater than or equal to 80°C or greater and less than or equal to 300°C. (*Emphasis added*)

Okayama fails to teach suggest or render predictable at least the above claimed features. In particular, Okayama fails to teach holding the wire in a reduced-pressure atmosphere and holding the wire at a temperature 80°C or greater and less than or equal to 300°C. Instead, Okayama teaches a first heat treatment to a third heat treatment performed in an Oxygen atmosphere at 910°C or 950°C for 5 hours. (Okayama, column 8, lines 21-50 and Table 1) Thus, Okayama fails to teach, suggest or disclose a reduced-pressure atmosphere or a temperature greater than or equal to 80°C or greater and less than or equal to 300°C.

Therefore, Okayama fails to anticipate the features of claim 1. Accordingly, claim 1 is believed to be allowable. Because claims 2, 3 and 5 depend from claim 1, they are believed to be allowable for at least the same reasons claim 1 is believed to be allowable.

Claim Rejections – 35 USC § 103

Claims 2-3 as best understood are rejected under 35 U.S.C. §103(a) as being unpatentable over Okayama in view of Meyer et al (U.S. Patent No. 5,043,320, hereinafter Meyer). Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Okayama et al. in view of Meyer et al. and further in view of Yamauchi et al. (U.S. Patent No. 4,906,609, hereinafter Yamauchi). These rejections are respectfully traversed.

Claims 2, 3 and 5 depend from claim 1, and thus include each of the features of claim 1. Okayama, Meyer or Yamauchi, alone or in combination, fail to teach, suggest or render predictable at least the above claimed features of claim 1. As discussed above, Okayama fails to teach, suggest or render predictable at least the above recited features of claim 1.

Similarly, Meyer fails to teach suggest or render predictable at least the above claimed features. Instead, a heat treatment in Meyer is performed under a pressure of 10 to 10000 bar (1 MPa to 1000 MPa) at a temperature of 600 °C to 950 °C. (See column 8, lines 19 to 29) However, the heat treatment is not performed in an interval between the drawing and the heat treatment. Moreover, the heat treatment is not performed while holding the wire at a reduced pressure atmosphere since 1 MPa and 1000 MPa is higher than atmospheric pressure.

The Original Specification recites numerous advantages of holding the wire in a reduced pressure atmosphere that would not be obvious to one of ordinary skill in the art. In particular, the use of a reduced pressure atmosphere during the intervals reduces the intrusion of carbon dioxide, water, or oxygen into the superconducting wire. (Original specification, page 2, lines 21-24) The intrusion of carbon dioxide, water, or oxygen can lead to the generation of hetero phases, that deteriorate the superconducting properties (such as the critical current value) of the wire. (Original specification, page 2, lines 25-28) Therefore the use of a reduced pressure atmosphere would not be obvious to one of ordinary skill in the art, given that the cited art, at best, teaches away from the claimed features.

Okayama in view of Meyer, fail to teach, suggest or render predictable at least the features of claim 1. Therefore, claim 1 is believed to be allowable. Because claims 2 and 3 depend from claim 1, they are believed to be allowable.

Claim 5 depends from claim 1, and thus includes each feature of claim 1. As discussed above, Meyer fails to teach, suggest or render predictable the features of claim 1. Yamauchi or Meyer, alone or in combination, fail to teach, suggest or render predictable at least the above claimed features of claim 1. Instead, Yamauchi teaches annealing in an atmosphere of N₂ gas at 700°C in an interval between a plurality of drawing steps. (Column 4, lines 60 to 68). Yamauchi fails to teach holding the wire in a reduced-pressure atmosphere. Therefore claim 1 is believed to be allowable over Meyer et al., in view of Yamauchi et al. Because claim 5 depends from claim 1, it is believed to be allowable for at least the same reasons claim 1 is believed to be allowable.

Concluding Remarks

After amending the claims as set forth above, claims 1-3 and 5-11 are pending in this application.

Applicants believe that the present application is in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

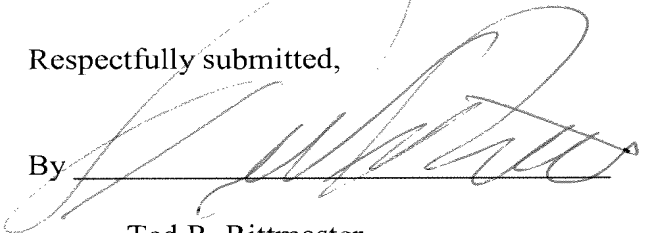
If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Date

11/25/08
FOLEY & LARDNER LLP
Customer Number: 23392
Telephone: (213) 972-4594
Facsimile: (213) 486-0065

Respectfully submitted,

By


Ted R. Rittmaster
Attorney for Applicants
Registration No. 32,933